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DEPARTMENT OF ENVIRONMENTAL QUALITY  
OFFICE OF PERMITS

# **Mountain Home AFB Title V Operating Permit Application**

Submitted to  
**Idaho Department of Environmental Quality**

January 2007

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**CH2MHILL**

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# Background

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On behalf of Mountain Home Air Force Base (MHAFB), CH2M HILL has prepared a Tier I Operating Permit renewal application for submittal to the Idaho Department of Environmental Quality (IDEQ). MHAFB is required to renew their Title V permit at least 6 months before the permit expiration date with the intent that the term of the operating permit does not expire before the permit is renewed in accordance with IDAPA 58.01.01.313.03 and permit condition 18 (Permit No. T1-040043). The current Tier I Operating Permit (Tier I) expiration date is October 29, 2007.

*In the event IDEQ "fails to issue or deny the renewal permit before the end of the term of this permit, then all the terms and conditions of this permit including any permit shield that may have been granted pursuant to IDAPA 58.01.01.325 shall remain in effect until the renewal permit has been issued or denied," per IDAPA 58.01.01.322.15.p. A copy of the current Tier I is included in Appendix A.*

This Tier I renewal application is being submitted to IDEQ by the United States Air Force (USAF), Air Combat Command (ACC), for MHAFB, Idaho. MHAFB is considered a major facility based on the potential to emit 100 tons per year or more of any regulated air pollutant per IDAPA 58.01.01.008.10.c.

## Facility Description

MHAFB is located approximately 10 miles southwest of Mountain Home, Idaho (Figure 1, Site Location Map). The Base occupies approximately 9 square miles of contiguous property. It also operates the nearby Saylor Creek practice bombing range, the Grasmere Electronic Combat Site, the Small Arms Range, and the C.J. Strike Dam Site. The Base consists of an airfield and associated support facilities, residential areas for Base personnel, a hospital, schools, recreational facilities, a landfill, and a wastewater treatment plant (Figure 2, Site Plan).

MHAFB was established in 1942. The 366<sup>th</sup> Air Wing is the host organization. Its mission is to develop, maintain, and train combat air crews for worldwide mobility by using a fighter wing concept to meet peacetime and wartime contingency requirements. It serves at the forefront of military operations, with the capability to rapidly mobilize and deploy the F-16C Fighter Falcon, the F-15E Strike Eagle, and the F-15C Eagle.

MHAFB is located in Elmore County, a rural agricultural area of southwestern Idaho, approximately 3,000 feet above mean sea level. Elmore County is designated as unclassifiable for all regulated criteria pollutants (PM<sub>10</sub>, CO, NO<sub>x</sub>, SO<sub>2</sub>, lead, and ozone).

The Tier I renewal application has been organized to present information in the order provided by IDAPA 58.01.01.314.

# 1.0 Application Forms

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## 1.1 Introduction

### IDAPA 314. Required Standard Application Form and Required Information.

#### 01. General Requirements

- a. *Applications shall be submitted on a form or forms provided by the Department or by other means prescribed by these rules or the Department. The application shall be certified by the responsible official in accordance with Section 123. If the Tier I source is regulated under 42 U.S.C. Sections 7651 through 7651o, the owner or operator shall also submit nationally-standardized acid rain forms provided by EPA.*
- b. *All information shall be in sufficient detail so that the Department may efficiently and effectively determine the applicability of requirements and make all other necessary evaluations and determinations.*

This section of the application provides the specific equipment forms for permitted emission units at MHAFB. Potential emissions were calculated in pounds per hour (lb/hr) and tons per year (tpy) based on the maximum operating capacity. The Application Forms include potential emission estimates for permitted sources. Actual emissions are based on the 2005 Air Emissions Inventory (CH2M HILL, March 2006) included with the potential emission estimates in Section 4.0.

Application forms are included for the following:

- General Information
- Abrasive Blasting (Bead Blasting)
- External Combustion Engines (ECOM)
  - Hospital Boilers
- Internal Combustion Engines (ICOM)
  - Barrier Flightline Generators (BFGs)
  - Hospital Generators
- Jet Engine Testing (JET)
- Surface Coating (Controlled Devices)
  - Aircraft (Large Paint Booth – Building 1330)
  - Aircraft Parts (Small Paint Booth – Building 1330)
  - Flightline Open-Area Spraying
  - Transportation Paint Booth (Building 1100)
- Fugitive Sources
  - Landfill Operations
  - Paved and Unpaved Roads





Department of Environmental Quality  
1410 N. Hilton  
Boise, ID 83706  
For assistance, call the Air Permit Hotline: 1-877-5PERMIT

Form #AQ-F-P004  
Revision: 1  
12/15/06

## AIR QUALITY TIER I OPERATING PERMIT APPLICATION

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### SECTION 1: GENERAL INFORMATION

Company & Division Name: Mountain Home Air Force Base DEPARTMENT OF ENVIRONMENTAL QUALITY  
STATE AIR PROGRAM

Company Mailing Address: 366 Gunfighter Avenue Suite 331

City: Mountain Home Air Force Base State: ID Zip: 83648

Company Environmental Contact Name: Bryan Trimberger

Title: Air Quality Manager Phone: 208-828-3724

Company Owner or Responsible Official Name: Col. Anthony Rock

Title: Wing Commander Phone: \_\_\_\_\_

Exact Plant Location: Nine miles southwest of Mountain Home, Idaho

General Nature of Business: Department of Defense

No. Full-time Employees: 4902 Property Area (acres): 6844

Reason for Application: ☐ Initial Tier I permit to operate  
☒ Renewal Tier I permit to operate  
☐ Modification/Amendment of existing Tier I permit to operate  
☐ Change of ownership or location

Distance to Nearest State Border (miles): 70

Primary SIC: 9711 Secondary SIC: \_\_\_\_\_

Plant Location County: Elmore Elevation (ft): \_\_\_\_\_

UTM Zone: 11

UTM (X) Coordinate (km): 592.5 UTM (Y) Coordinate (km): 4767.0

LIST ALL FACILITIES WITHIN THE STATE THAT ARE UNDER YOUR CONTROL OR UNDER COMMON CONTROL AND HAVE EMISSIONS TO THE AIR. IF NOT, SO STATE.

Name of Facility	Location of Other Facility
<u>Saylor Creek Range</u>	<u>Approximately 20 miles southeast of Mountain Home AFB</u>
<u>Grasmere Electric Combat Site</u>	<u>Approximately 65 miles southwest of Mountain Home AFB</u>
<u>Off-site small arms range</u>	<u>Approximately 1 mile northwest of Mountain Home AFB</u>
<u>C.J. Strike dam site</u>	<u>Approximately 8 miles southwest of Mountain Home AFB</u>
<u>Juniper Butte</u>	<u>Approximately 25 miles southeast of SCR</u>
Owner or Responsible Official	<u>Col Anthony Rock</u>
Title of Responsible Official	<u>Wing Commander</u>

#### Certification of Truth, Accuracy, and Completeness (by Responsible Official)

I hereby certify that based on information and belief formed after reasonable inquiry, the statements and information contained in this and any attached and/or referenced document(s) are true, accurate, and complete in accordance with IDAPA 58.01.01.123-124.

Anthony J. Rock  
Responsible Official Signature

Commander, 366th Fighter Wing  
Responsible Official Title

6/20/2007  
Date

ANTHONY J. ROCK, Colonel, USAF  
Print or Type Responsible Official Name



## 1.2 Abrasive Blasting Forms

Only one permitted abrasive cleaner or “bead blaster” is located at MHAFB, which vents to the atmosphere. The bead blaster contains a small opening at the point of discharge from a self-contained hopper to a 55-gallon drum. This bead blaster is located at Building 1330 and is required to maintain an air quality Permit-to-Construct (PTC). Table 1.2-1 lists the permitted abrasive blasting source.

**TABLE 1.2-1**  
**Abrasive Blasting**

Process Code	Process Description <sup>1</sup>	Emission Estimate Documentation <sup>2</sup>
ABCL-01	Blasting Booth inside Bldg 1330	Section 4.2

Notes:

<sup>1</sup> Refer to Section 2 of the permit application for additional detail.

<sup>2</sup> This column denotes the permit application section number of the emissions estimate documentation.

## SECTION 3: PROCESS AND MANUFACTURING OPERATIONS

DEQ USE ONLY	
DEQ Plant ID Code	DEQ Stack ID Code
DEQ Building Code	Primary SCC
DEQ Segment Code	Secondary SCC
DEQ Process Code	

### SECTION 3, PART A.

#### GENERAL INFORMATION

Process Code or Description Abrasive Blasting  
 Stack Description Stack No. 1  
 Building Description Building 1330  
 Manufacturer Pavli and Griffin Model PRAM 151220 Date Installed 1995  
 Date Last Modified \_\_\_\_\_

#### PROCESSING DATA

Process Stream	Material Description	Maximum Hourly Rate	Actual Hourly Rate	Units
Input				
Product Output				
Waste Output				
Recycle				

#### POTENTIAL HAPS IN PROCESS STREAM(S)

HAP Description	HAP CAS Number	Fraction In Input Stream by Weight	Fraction In Product Stream by Weight	Fraction in Waste Stream by Weight	Fraction in Recycle Stream by Weight
Hexavalent Chromium	7440-47-3	0.7%	0.7%	0.7%	0.7%

## SECTION 3, PART B.

### OPERATING DATA

Percent Fuel Consumption Per Quarter
Dec – Feb
Mar – May
Jun – Aug
Sep – Nov

Operating Schedule	
Hours/Day	24
Days/Week	7
Weeks/Year	52

### POLLUTION CONTROL EQUIPMENT

Parameter	Primary	Secondary
Type		
Type Code (from APP.A)		
Manufacturer	Pavli and Griffin	
Model Number	0240-050-01	
Pressure Drop (in. of water)		
Wet Scrubber Flow (GPM)		
Baghouse Air/Cloth Ratio (FPM)		

### VENTILATION AND BUILDING/AREA DATA

Enclosed?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Hood Type (from APP.B)	
Minimum Flow (acfm)	
Percent Capture Efficiency	
Building Height (ft)	48
Building/Area Length (ft)	296
Building/Area Width (ft)	124

### STACK DATA

Ground Elevation (ft)	2990
UTM X Coordinate (km)	591.26
UTM Y Coordinate (km)	4767.52
Stack Type (see note below)	01
Stack Exit Height from Ground Level (ft)	4
Stack Exit Diameter (ft)	1.6
Stack Exit Gas Flowrate (acfm)	2980
Stack Exit Temperature (°F)	67.7

### AIR POLLUTION EMISSIONS

Pollutant	CAS #	Emission Factor (see below)	Percent Control Efficiency	Estimated or Measured Emissions (lbs/hr)	Allowable Emissions		
					lbs/hr	tons/yr	Reference
PM						2.57E-04	
PM <sub>10</sub>							
SO <sub>2</sub>							
CO							
NO <sub>x</sub>							
VOC							
Lead							
Cr+6	7440-47-3					6.9E-05	

**Note:** Stack Type: 01 – Downward; 02 – Vertical (uncovered); 03 – Vertical (covered); 04 – Horizontal; 05 – Fugitive  
Emission Factor in lbs/units. Please use same hourly units given in fuel data section.



## 1.3 External Combustion Forms

ECOM sources include boilers, furnaces, and heaters located in the industrial and administrative areas of the Base. Only the hospital boilers are permitted. Table 1.3-1 lists the permitted ECOM sources.

**TABLE 1.3-1**  
ECOM Description

Process Code	Process Description <sup>1</sup>	Emission Estimate Documentation <sup>2</sup>
ECOM-01	Hospital Boiler 1 (Kewanee)	Section 4.3
ECOM-02	Hospital Boiler 2 (Kewanee)	Section 4.3
ECOM-03	Hospital Boiler 3 (Kewanee)	Section 4.3
ECOM-04	Hospital Boiler 4 (Hurst)	Section 4.3

**Notes:**

<sup>1</sup> Refer to Section 2 of the permit application for additional detail.

<sup>2</sup> This column denotes the permit application section number of the emissions estimate documentation.

## SECTION 2: FUEL-BURNING EQUIPMENT

DEQ USE ONLY	
DEQ Plant ID Code _____	DEQ Stack ID Code _____
DEQ Building Code _____	Primary SCC _____
DEQ Segment Code _____	Secondary SCC _____
DEQ Process Code _____	

### SECTION 2, PART A.

#### GENERAL INFORMATION

Process Code or Description ECOM-01 Hospital Boiler 01  
 Stack Description Stack No. 1  
 Building Description Building 6000  
 Manufacturer Kewanee Model LSW-125-GO Date Installed 1998  
 Date Last Modified \_\_\_\_\_

#### RATED CAPACITY (CHOOSE APPROPRIATE UNITS)

Million BTU/hr 5.231 1000 lbs Steam/hr \_\_\_\_\_ Kilowatts \_\_\_\_\_ Horsepower \_\_\_\_\_  
 Burner Type \_\_\_\_\_ % Used for Process 1.5  
 (see note below) % Used for Space Heat 98.5

#### FUEL DATA

Parameter	Primary Fuel	Units	Secondary Fuel	Units
Fuel Code (see note below)	01		02	
Percent Sulfur	0		0.5	
Percent Ash	0		0	
Percent Nitrogen	1.5		0	
Percent Carbon	0.33		0	
Percent Hydrogen	0		0	
Percent Moisture	0		0	
Heat Content (BTU/unit)	1024	CF	133440	Gallons
Maximum Hourly Combustion Rate (units/hr)	0.005	MMCF	39.2	Gallons
Normal Annual Combustion Rate (units/hr)	4.01	MMCF	0	Gallons

#### Note:

Burner Type: 01 - Spread stoker  
 02 - Chain or Traveling Grate  
 03 - Hand Fired  
 04 - Cyclone Furnace  
 05 - Wet Bottom (pulverized coal)  
 06 - Dry Bottom (pulverized coal)  
 07 - Underfeed Stokers  
 08 - Tangentially Fired  
 09 - Horizontally Fired  
 10 - Axially Fired  
 11 - Other (specify): \_\_\_\_\_

Fuel Codes: 01 - Natural Gas  
 02 - #1 or #2 Fuel Oil  
 03 - #4 Fuel Oil  
 04 - #5 or #6 Fuel Oil  
 05 - Used Oil  
 06 - Wood Chips  
 07 - Wood Bark  
 08 - Wood Shavings  
 09 - Sander Dust  
 10 - Subbituminous Coal  
 11 - Bituminous Coal  
 12 - Anthracite Coal  
 13 - Lignite Coal  
 14 - Propane  
 15 - Other (specify): \_\_\_\_\_

## SECTION 2, PART B.

### OPERATING DATA

Percent Fuel Consumption Per Quarter
Dec – Feb
Mar – May
Jun – Aug
Sep – Nov

Operating Schedule	
Hours/Day	24
Days/Week	7
Weeks/Year	52

### POLLUTION CONTROL EQUIPMENT

Parameter	Primary	Secondary
Type	None	None
Type Code (from APP.A)		
Manufacturer		
Model Number		
Pressure Drop (in. of water)		
Wet Scrubber Flow (GPM)		
Baghouse Air/Cloth Ratio (FPM)		

### VENTILATION AND BUILDING/AREA DATA

Enclosed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hood Type (from APP.B)	NA
Minimum Flow (acfm)	NA
Percent Capture Efficiency	NA
Building Height (ft)	35
Building/Area Length (ft)	600
Building/Area Width (ft)	200

### STACK DATA

Ground Elevation (ft)	2990
UTM X Coordinate (km)	592.2
UTM Y Coordinate (km)	4767.1
Stack Type (see note below)	03
Stack Exit Height from Ground Level (ft)	48
Stack Exit Diameter (ft)	3.0
Stack Exit Gas Flowrate (acfm)	60661
Stack Exit Temperature (°F)	300

### AIR POLLUTION EMISSIONS

Pollutant	CAS #	Emission Factor (see below)	Percent Control Efficiency	Estimated or Measured Emissions (lbs/hr)	Allowable Emissions		
					lbs/hr	tons/yr	Reference
PM						0.17	
PM <sub>10</sub>						0.17	
SO <sub>2</sub>						2.16	combined (3)Kewanee
CO						1.8	
NO <sub>x</sub>						2.2	
VOC						0.12	
Lead							
HAPs						0.04	

**Note:** Stack Type: 01 – Downward; 02 – Vertical (uncovered); 03 – Vertical (covered); 04 – Horizontal; 05 – Fugitive  
Emission Factor in lbs/units. Please use same hourly units given in fuel data section.



## SECTION 2: FUEL-BURNING EQUIPMENT

DEQ USE ONLY	
DEQ Plant ID Code _____	DEQ Stack ID Code _____
DEQ Building Code _____	Primary SCC _____
DEQ Segment Code _____	Secondary SCC _____
DEQ Process Code _____	

### SECTION 2, PART A.

#### GENERAL INFORMATION

Process Code or Description ECOM-02 Hospital Boiler 02  
 Stack Description Stack No. 1  
 Building Description Building 6000  
 Manufacturer Kewanee Model LSW-125-GO Date Installed 1998  
 Date Last Modified \_\_\_\_\_

#### RATED CAPACITY (CHOOSE APPROPRIATE UNITS)

Million BTU/hr 5.231 1000 lbs Steam/hr \_\_\_\_\_ Kilowatts \_\_\_\_\_ Horsepower \_\_\_\_\_  
 Burner Type \_\_\_\_\_ % Used for Process 1.5  
 (see note below) % Used for Space Heat 98.5

#### FUEL DATA

Parameter	Primary Fuel	Units	Secondary Fuel	Units
Fuel Code (see note below)	01		02	
Percent Sulfur	0		0.5	
Percent Ash	0		0	
Percent Nitrogen	1.5		0	
Percent Carbon	0.33		0	
Percent Hydrogen	0		0	
Percent Moisture	0		0	
Heat Content (BTU/unit)	1024	CF	133440	Gallons
Maximum Hourly Combustion Rate (units/hr)	0.005	MMCF	39.2	Gallons
Normal Annual Combustion Rate (units/hr)	4.01	MMCF	0	Gallons

#### Note:

Burner Type: 01 - Spread stoker  
 02 - Chain or Traveling Grate  
 03 - Hand Fired  
 04 - Cyclone Furnace  
 05 - Wet Bottom (pulverized coal)  
 06 - Dry Bottom (pulverized coal)  
 07 - Underfeed Stokers  
 08 - Tangentially Fired  
 09 - Horizontally Fired  
 10 - Axially Fired  
 11 - Other (specify): \_\_\_\_\_

Fuel Codes: 01 - Natural Gas  
 02 - #1 or #2 Fuel Oil  
 03 - #4 Fuel Oil  
 04 - #5 or #6 Fuel Oil  
 05 - Used Oil  
 06 - Wood Chips  
 07 - Wood Bark  
 08 - Wood Shavings  
 09 - Sander Dust  
 10 - Subbituminous Coal  
 11 - Bituminous Coal  
 12 - Anthracite Coal  
 13 - Lignite Coal  
 14 - Propane  
 15 - Other (specify): \_\_\_\_\_

## SECTION 2, PART B.

### OPERATING DATA

Percent Fuel Consumption Per Quarter
Dec – Feb
Mar – May
Jun – Aug
Sep – Nov

Operating Schedule	
Hours/Day	24
Days/Week	7
Weeks/Year	52

### POLLUTION CONTROL EQUIPMENT

Parameter	Primary	Secondary
Type	None	None
Type Code (from APP.A)		
Manufacturer		
Model Number		
Pressure Drop (in. of water)		
Wet Scrubber Flow (GPM)		
Baghouse Air/Cloth Ratio (FPM)		

### VENTILATION AND BUILDING/AREA DATA

Enclosed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hood Type (from APP.B)	NA
Minimum Flow (acfm)	NA
Percent Capture Efficiency	NA
Building Height (ft)	35
Building/Area Length (ft)	600
Building/Area Width (ft)	200

### STACK DATA

Ground Elevation (ft)	2990
UTM X Coordinate (km)	592.2
UTM Y Coordinate (km)	4767.1
Stack Type (see note below)	03
Stack Exit Height from Ground Level (ft)	48
Stack Exit Diameter (ft)	3.0
Stack Exit Gas Flowrate (acfm)	60661
Stack Exit Temperature (°F)	300

### AIR POLLUTION EMISSIONS

Pollutant	CAS #	Emission Factor (see below)	Percent Control Efficiency	Estimated or Measured Emissions (lbs/hr)	Allowable Emissions		
					lbs/hr	tons/yr	Reference
PM						0.17	
PM <sub>10</sub>						0.17	
SO <sub>2</sub>						2.16	combined (3)Kewanee
CO						1.8	
NO <sub>x</sub>						2.2	
VOC						0.12	
Lead							
HAPs						0.04	

Note: Stack Type: 01 – Downward; 02 – Vertical (uncovered); 03 – Vertical (covered); 04 – Horizontal; 05 – Fugitive  
Emission Factor in lbs/units. Please use same hourly units given in fuel data section.



## SECTION 2: FUEL-BURNING EQUIPMENT

DEQ USE ONLY	
DEQ Plant ID Code _____	DEQ Stack ID Code _____
DEQ Building Code _____	Primary SCC _____
DEQ Segment Code _____	Secondary SCC _____
DEQ Process Code _____	

### SECTION 2, PART A.

#### GENERAL INFORMATION

Process Code or Description ECOM-03 Hospital Boiler 03  
 Stack Description Stack No. 1  
 Building Description Building 6000  
 Manufacturer Kewanee Model LSW-125-GO Date Installed 1998  
 Date Last Modified \_\_\_\_\_

#### RATED CAPACITY (CHOOSE APPROPRIATE UNITS)

Million BTU/hr 5.231 1000 lbs Steam/hr \_\_\_\_\_ Kilowatts \_\_\_\_\_ Horsepower \_\_\_\_\_  
 Burner Type \_\_\_\_\_ % Used for Process 1.5  
 (see note below) % Used for Space Heat 98.5

#### FUEL DATA

Parameter	Primary Fuel	Units	Secondary Fuel	Units
Fuel Code (see note below)	01		02	
Percent Sulfur	0		0.5	
Percent Ash	0		0	
Percent Nitrogen	1.5		0	
Percent Carbon	0.33		0	
Percent Hydrogen	0		0	
Percent Moisture	0		0	
Heat Content (BTU/unit)	1024	CF	133440	Gallons
Maximum Hourly Combustion Rate (units/hr)	0.005	MMCF	39.2	Gallons
Normal Annual Combustion Rate (units/hr)	4.01	MMCF	0	Gallons

#### Note:

Burner Type: 01 - Spread stoker  
 02 - Chain or Traveling Grate  
 03 - Hand Fired  
 04 - Cyclone Furnace  
 05 - Wet Bottom (pulverized coal)  
 06 - Dry Bottom (pulverized coal)  
 07 - Underfeed Stokers  
 08 - Tangentially Fired  
 09 - Horizontally Fired  
 10 - Axially Fired  
 11 - Other (specify): \_\_\_\_\_

Fuel Codes: 01 - Natural Gas  
 02 - #1 or #2 Fuel Oil  
 03 - #4 Fuel Oil  
 04 - #5 or #6 Fuel Oil  
 05 - Used Oil  
 06 - Wood Chips  
 07 - Wood Bark  
 08 - Wood Shavings  
 09 - Sander Dust  
 10 - Subbituminous Coal  
 11 - Bituminous Coal  
 12 - Anthracite Coal  
 13 - Lignite Coal  
 14 - Propane  
 15 - Other (specify): \_\_\_\_\_



## SECTION 2, PART B.

### OPERATING DATA

Percent Fuel Consumption Per Quarter
Dec – Feb
Mar – May
Jun – Aug
Sep – Nov

Operating Schedule	
Hours/Day	24
Days/Week	7
Weeks/Year	52

### POLLUTION CONTROL EQUIPMENT

Parameter	Primary	Secondary
Type	None	None
Type Code (from APP.A)		
Manufacturer		
Model Number		
Pressure Drop (in. of water)		
Wet Scrubber Flow (GPM)		
Baghouse Air/Cloth Ratio (FPM)		

### VENTILATION AND BUILDING/AREA DATA

Enclosed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hood Type (from APP.B)	NA
Minimum Flow (acfm)	NA
Percent Capture Efficiency	NA
Building Height (ft)	35
Building/Area Length (ft)	600
Building/Area Width (ft)	200

### STACK DATA

Ground Elevation (ft)	2990
UTM X Coordinate (km)	592.2
UTM Y Coordinate (km)	4767.1
Stack Type (see note below)	03
Stack Exit Height from Ground Level (ft)	48
Stack Exit Diameter (ft)	3.0
Stack Exit Gas Flowrate (acfm)	60661
Stack Exit Temperature (°F)	300

### AIR POLLUTION EMISSIONS

Pollutant	CAS #	Emission Factor (see below)	Percent Control Efficiency	Estimated or Measured Emissions (lbs/hr)	Allowable Emissions		
					lbs/hr	tons/yr	Reference
PM						0.17	
PM <sub>10</sub>						0.17	
SO <sub>2</sub>						2.16	combined (3)Kewanee
CO						1.8	
NO <sub>x</sub>						2.2	
VOC						0.12	
Lead							
HAPs						0.04	

**Note:** Stack Type: 01 – Downward; 02 – Vertical (uncovered); 03 – Vertical (covered); 04 – Horizontal; 05 – Fugitive  
Emission Factor in lbs/units. Please use same hourly units given in fuel data section.

## SECTION 2: FUEL-BURNING EQUIPMENT

<u>DEQ USE ONLY</u>	
DEQ Plant ID Code _____	DEQ Stack ID Code _____
DEQ Building Code _____	Primary SCC _____
DEQ Segment Code _____	Secondary SCC _____
DEQ Process Code _____	

### SECTION 2, PART A.

#### GENERAL INFORMATION

Process Code or Description ECOM-04 Hospital Boiler 04  
 Stack Description Stack No. 2  
 Building Description Building 6000  
 Manufacturer Hurst Model HVTG25150 Date Installed 1998  
 Date Last Modified \_\_\_\_\_

#### RATED CAPACITY (CHOOSE APPROPRIATE UNITS)

Million BTU/hr 1.05 1000 lbs Steam/hr \_\_\_\_\_ Kilowatts \_\_\_\_\_ Horsepower \_\_\_\_\_  
 Burner Type \_\_\_\_\_ % Used for Process 1.5  
 (see note below) % Used for Space Heat 98.5

#### FUEL DATA

Parameter	Primary Fuel	Units	Secondary Fuel	Units
Fuel Code (see note below)	01		02	
Percent Sulfur	0		0.5	
Percent Ash	0		0	
Percent Nitrogen	1.5		0	
Percent Carbon	0.33		0	
Percent Hydrogen	0		0	
Percent Moisture	0		0	
Heat Content (BTU/unit)	1024	CF	133440	Gallons
Maximum Hourly Combustion Rate (units/hr)	0.0012	MMCF	9	Gallons
Normal Annual Combustion Rate (units/hr)	10.5	MMCF	0	Gallons

#### Note:

Burner Type: 01 - Spread stoker  
 02 - Chain or Traveling Grate  
 03 - Hand Fired  
 04 - Cyclone Furnace  
 05 - Wet Bottom (pulverized coal)  
 06 - Dry Bottom (pulverized coal)  
 07 - Underfeed Stokers  
 08 - Tangentially Fired  
 09 - Horizontally Fired  
 10 - Axially Fired  
 11 - Other (specify): \_\_\_\_\_

Fuel Codes: 01 - Natural Gas  
 02 - #1 or #2 Fuel Oil  
 03 - #4 Fuel Oil  
 04 - #5 or #6 Fuel Oil  
 05 - Used Oil  
 06 - Wood Chips  
 07 - Wood Bark  
 08 - Wood Shavings  
 09 - Sander Dust  
 10 - Subbituminous Coal  
 11 - Bituminous Coal  
 12 - Anthracite Coal  
 13 - Lignite Coal  
 14 - Propane  
 15 - Other (specify): \_\_\_\_\_

## SECTION 2, PART B.

### OPERATING DATA

Percent Fuel Consumption Per Quarter
Dec – Feb
Mar – May
Jun – Aug
Sep – Nov

Operating Schedule	
Hours/Day	24
Days/Week	7
Weeks/Year	52

### POLLUTION CONTROL EQUIPMENT

Parameter	Primary	Secondary
Type	None	None
Type Code (from APP.A)		
Manufacturer		
Model Number		
Pressure Drop (in. of water)		
Wet Scrubber Flow (GPM)		
Baghouse Air/Cloth Ratio (FPM)		

### VENTILATION AND BUILDING/AREA DATA

Enclosed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hood Type (from APP.B)	NA
Minimum Flow (acfm)	NA
Percent Capture Efficiency	NA
Building Height (ft)	35
Building/Area Length (ft)	600
Building/Area Width (ft)	200

### STACK DATA

Ground Elevation (ft)	2990
UTM X Coordinate (km)	592.2
UTM Y Coordinate (km)	4767.1
Stack Type (see note below)	03
Stack Exit Height from Ground Level (ft)	48
Stack Exit Diameter (ft)	0.667
Stack Exit Gas Flowrate (acfm)	400
Stack Exit Temperature (°F)	500

### AIR POLLUTION EMISSIONS

Pollutant	CAS #	Emission Factor (see below)	Percent Control Efficiency	Estimated or Measured Emissions (lbs/hr)	Allowable Emissions		
					lbs/hr	tons/yr	Reference
PM						0.03	
PM <sub>10</sub>						0.03	
SO <sub>2</sub>						0.14	
CO						0.36	
NO <sub>x</sub>						0.45	
VOC						0.02	
Lead							
HAPs						0.0008	

Note: Stack Type: 01 – Downward; 02 – Vertical (uncovered); 03 – Vertical (covered); 04 – Horizontal; 05 – Fugitive Emission Factor in lbs/units. Please use same hourly units given in fuel data section.



## 1.4 Internal Combustion Forms

ICOM sources include generators on the Base. The barrier flightline generators (BFGs) and the hospital generators are the only permitted ICOM sources on the Base. On October 4, 2006, MHAFB received a Permit-to-Construct (PTC) completeness determination for the BFG application. Table 1.4-1 lists the permitted ICOM sources.

TABLE 1.4-1  
ICOM Description

Process Code	Process Description <sup>1</sup>	Emission Estimate Documentation <sup>2</sup>
ICOM-01	Hospital Generator 1	Section 4.4
ICOM-02	Hospital Generator 2	Section 4.4
ICOM-03	Hospital Generator 3	Section 4.4
ICOM-04	Barrier Flightline Generator 1	Section 4.4
ICOM-05	Barrier Flightline Generator 2	Section 4.4
ICOM-06	Barrier Flightline Generator 3	Section 4.4
ICOM-07	Barrier Flightline Generator 4	Section 4.4

Notes:

<sup>1</sup> Refer to Section 2 of the permit application for additional detail

<sup>2</sup> This column denotes the permit application section number of the emissions estimate documentation.

## SECTION 2: FUEL-BURNING EQUIPMENT

<u>DEQ USE ONLY</u>			
DEQ Plant ID Code		DEQ Stack ID Code	
DEQ Building Code		Primary SCC	
DEQ Segment Code		Secondary SCC	
DEQ Process Code			

### SECTION 2, PART A.

#### GENERAL INFORMATION

Process Code or Description ICOM 01 - Hospital Generator 01  
 Stack Description Gen 01  
 Building Description Building 6000  
 Manufacturer Caterpillar Model SR 4 Date Installed \_\_\_\_\_  
 Date Last Modified \_\_\_\_\_

#### RATED CAPACITY (CHOOSE APPROPRIATE UNITS)

Million BTU/hr \_\_\_\_\_ 1000 lbs Steam/hr \_\_\_\_\_ Kilowatts 750 Horsepower \_\_\_\_\_  
 Burner Type \_\_\_\_\_ % Used for Process 100  
 (see note below) % Used for Space Heat NA

#### FUEL DATA

Parameter	Primary Fuel	Units	Secondary Fuel	Units
Fuel Code (see note below)	<u>02</u>		<u>NA</u>	
Percent Sulfur	<u>0.5</u>		<u>0</u>	
Percent Ash	<u>0</u>		<u>0</u>	
Percent Nitrogen	<u>0</u>		<u>0</u>	
Percent Carbon	<u>0</u>		<u>0</u>	
Percent Hydrogen	<u>0</u>		<u>0</u>	
Percent Moisture	<u>0</u>		<u>0</u>	
Heat Content (BTU/unit)	<u>133440</u>	<u>Gal</u>	<u>0</u>	
Maximum Hourly Combustion Rate (units/hr)	<u>49.4</u>	<u>Gal</u>	<u>0</u>	
Normal Annual Combustion Rate (units/hr)	<u>24700</u>	<u>Gal</u>	<u>0</u>	

#### Note:

Burner Type: 01 - Spread stoker  
 02 - Chain or Traveling Grate  
 03 - Hand Fired  
 04 - Cyclone Furnace  
 05 - Wet Bottom (pulverized coal)  
 06 - Dry Bottom (pulverized coal)  
 07 - Underfeed Stokers  
 08 - Tangentially Fired  
 09 - Horizontally Fired  
 10 - Axially Fired  
 11 - Other (specify): \_\_\_\_\_

Fuel Codes: 01 - Natural Gas  
 02 - #1 or #2 Fuel Oil  
 03 - #4 Fuel Oil  
 04 - #5 or #6 Fuel Oil  
 05 - Used Oil  
 06 - Wood Chips  
 07 - Wood Bark  
 08 - Wood Shavings  
 09 - Sander Dust  
 10 - Subbituminous Coal  
 11 - Bituminous Coal  
 12 - Anthracite Coal  
 13 - Lignite Coal  
 14 - Propane  
 15 - Other (specify): \_\_\_\_\_

## SECTION 2, PART B.

### OPERATING DATA

Percent Fuel Consumption Per Quarter	
Dec – Feb	25
Mar – May	25
Jun – Aug	25
Sep – Nov	25

Operating Schedule	
Hours/Day	24
Days/Week	7
Weeks/Year	52

### POLLUTION CONTROL EQUIPMENT

Parameter	Primary	Secondary
Type	None	None
Type Code (from APP.A)		
Manufacturer		
Model Number		
Pressure Drop (in. of water)		
Wet Scrubber Flow (GPM)		
Baghouse Air/Cloth Ratio (FPM)		

### VENTILATION AND BUILDING/AREA DATA

Enclosed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hood Type (from APP.B)	NA
Minimum Flow (acfm)	NA
Percent Capture Efficiency	NA
Building Height (ft)	35
Building/Area Length (ft)	600
Building/Area Width (ft)	200

### STACK DATA

Ground Elevation (ft)	2990
UTM X Coordinate (km)	592.2
UTM Y Coordinate (km)	4767.1
Stack Type (see note below)	03
Stack Exit Height from Ground Level (ft)	48
Stack Exit Diameter (ft)	0.83
Stack Exit Gas Flowrate (acfm)	4217
Stack Exit Temperature (°F)	734

### AIR POLLUTION EMISSIONS

Pollutant	CAS #	Emission Factor (see below)	Percent Control Efficiency	Estimated or Measured Emissions (lbs/hr)	Allowable Emissions		
					lbs/hr	tons/yr	Reference
PM						0.18	
PM <sub>10</sub>						0.18	
SO <sub>2</sub>						3.1	combined (3) gen
CO						1.38	
NO <sub>x</sub>						18.1	combined (3) gen
VOC						0.18	
Lead							
HAPs						0.002	

Note: Stack Type: 01 – Downward; 02 – Vertical (uncovered); 03 – Vertical (covered); 04 – Horizontal; 05 – Fugitive  
Emission Factor in lbs/units. Please use same hourly units given in fuel data section.



## SECTION 2: FUEL-BURNING EQUIPMENT

<b>DEQ USE ONLY</b>			
DEQ Plant ID Code		DEQ Stack ID Code	
DEQ Building Code		Primary SCC	
DEQ Segment Code		Secondary SCC	
DEQ Process Code			

### SECTION 2, PART A.

#### GENERAL INFORMATION

Process Code or Description ICOM 02 - Hospital Generator 02  
 Stack Description Gen 02  
 Building Description Building 6000  
 Manufacturer Caterpillar Model SR 4 Date Installed \_\_\_\_\_  
 Date Last Modified \_\_\_\_\_

#### RATED CAPACITY (CHOOSE APPROPRIATE UNITS)

Million BTU/hr \_\_\_\_\_ 1000 lbs Steam/hr \_\_\_\_\_ Kilowatts 750 Horsepower \_\_\_\_\_  
 Burner Type \_\_\_\_\_ % Used for Process 100  
 (see note below) % Used for Space Heat NA

#### FUEL DATA

Parameter	Primary Fuel	Units	Secondary Fuel	Units
Fuel Code (see note below)	02		NA	
Percent Sulfur	0.5		0	
Percent Ash	0		0	
Percent Nitrogen	0		0	
Percent Carbon	0		0	
Percent Hydrogen	0		0	
Percent Moisture	0		0	
Heat Content (BTU/unit)	133440	Gal	0	
Maximum Hourly Combustion Rate (units/hr)	49.4	Gal	0	
Normal Annual Combustion Rate (units/hr)	24700	Gal	0	

#### Note:

Burner Type: 01 - Spread stoker  
 02 - Chain or Traveling Grate  
 03 - Hand Fired  
 04 - Cyclone Furnace  
 05 - Wet Bottom (pulverized coal)  
 06 - Dry Bottom (pulverized coal)  
 07 - Underfeed Stokers  
 08 - Tangentially Fired  
 09 - Horizontally Fired  
 10 - Axially Fired  
 11 - Other (specify): \_\_\_\_\_

Fuel Codes: 01 - Natural Gas  
 02 - #1 or #2 Fuel Oil  
 03 - #4 Fuel Oil  
 04 - #5 or #6 Fuel Oil  
 05 - Used Oil  
 06 - Wood Chips  
 07 - Wood Bark  
 08 - Wood Shavings  
 09 - Sander Dust  
 10 - Subbituminous Coal  
 11 - Bituminous Coal  
 12 - Anthracite Coal  
 13 - Lignite Coal  
 14 - Propane  
 15 - Other (specify): \_\_\_\_\_

## SECTION 2, PART B.

### OPERATING DATA

Percent Fuel Consumption Per Quarter	
Dec – Feb	25
Mar – May	25
Jun – Aug	25
Sep – Nov	25

Operating Schedule	
Hours/Day	24
Days/Week	7
Weeks/Year	52

### POLLUTION CONTROL EQUIPMENT

Parameter	Primary	Secondary
Type	None	None
Type Code (from APP.A)		
Manufacturer		
Model Number		
Pressure Drop (in. of water)		
Wet Scrubber Flow (GPM)		
Baghouse Air/Cloth Ratio (FPM)		

### VENTILATION AND BUILDING/AREA DATA

Enclosed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hood Type (from APP.B)	NA
Minimum Flow (acfm)	NA
Percent Capture Efficiency	NA
Building Height (ft)	35
Building/Area Length (ft)	600
Building/Area Width (ft)	200

### STACK DATA

Ground Elevation (ft)	2990
UTM X Coordinate (km)	592.2
UTM Y Coordinate (km)	4767.1
Stack Type (see note below)	03
Stack Exit Height from Ground Level (ft)	48
Stack Exit Diameter (ft)	0.83
Stack Exit Gas Flowrate (acfm)	4217
Stack Exit Temperature (°F)	734

### AIR POLLUTION EMISSIONS

Pollutant	CAS #	Emission Factor (see below)	Percent Control Efficiency	Estimated or Measured Emissions (lbs/hr)	Allowable Emissions		
					lbs/hr	tons/yr	Reference
PM						0.18	
PM <sub>10</sub>						0.18	
SO <sub>2</sub>						3.1	combined (3) gen
CO						1.38	
NO <sub>x</sub>						18.1	combined (3) gen
VOC						0.18	
Lead							
HAPs						0.002	

Note: Stack Type: 01 – Downward; 02 – Vertical (uncovered); 03 – Vertical (covered); 04 – Horizontal; 05 – Fugitive  
Emission Factor in lbs/units. Please use same hourly units given in fuel data section.

## SECTION 2: FUEL-BURNING EQUIPMENT

<u>DEQ USE ONLY</u>			
DEQ Plant ID Code		DEQ Stack ID Code	
DEQ Building Code		Primary SCC	
DEQ Segment Code		Secondary SCC	
DEQ Process Code			

### SECTION 2, PART A.

#### GENERAL INFORMATION

Process Code or Description ICOM 03 - Hospital Generator 03  
 Stack Description Gen 03  
 Building Description Building 6000  
 Manufacturer Caterpillar Model SR 4 Date Installed \_\_\_\_\_  
 Date Last Modified \_\_\_\_\_

#### RATED CAPACITY (CHOOSE APPROPRIATE UNITS)

Million BTU/hr \_\_\_\_\_ 1000 lbs Steam/hr \_\_\_\_\_ Kilowatts 750 Horsepower \_\_\_\_\_  
 Burner Type \_\_\_\_\_ % Used for Process 100  
 (see note below) % Used for Space Heat NA

#### FUEL DATA

Parameter	Primary Fuel	Units	Secondary Fuel	Units
Fuel Code (see note below)	02		NA	
Percent Sulfur	0.5		0	
Percent Ash	0		0	
Percent Nitrogen	0		0	
Percent Carbon	0		0	
Percent Hydrogen	0		0	
Percent Moisture	0		0	
Heat Content (BTU/unit)	133440	Gal	0	
Maximum Hourly Combustion Rate (units/hr)	49.4	Gal	0	
Normal Annual Combustion Rate (units/hr)	24700	Gal	0	

#### Note:

Burner Type: 01 - Spread stoker  
 02 - Chain or Traveling Grate  
 03 - Hand Fired  
 04 - Cyclone Furnace  
 05 - Wet Bottom (pulverized coal)  
 06 - Dry Bottom (pulverized coal)  
 07 - Underfeed Stokers  
 08 - Tangentially Fired  
 09 - Horizontally Fired  
 10 - Axially Fired  
 11 - Other (specify): \_\_\_\_\_

Fuel Codes: 01 - Natural Gas  
 02 - #1 or #2 Fuel Oil  
 03 - #4 Fuel Oil  
 04 - #5 or #6 Fuel Oil  
 05 - Used Oil  
 06 - Wood Chips  
 07 - Wood Bark  
 08 - Wood Shavings  
 09 - Sander Dust  
 10 - Subbituminous Coal  
 11 - Bituminous Coal  
 12 - Anthracite Coal  
 13 - Lignite Coal  
 14 - Propane  
 15 - Other (specify): \_\_\_\_\_



## SECTION 2, PART B.

### OPERATING DATA

Percent Fuel Consumption Per Quarter	
Dec – Feb	25
Mar – May	25
Jun – Aug	25
Sep – Nov	25

Operating Schedule	
Hours/Day	24
Days/Week	7
Weeks/Year	52

### POLLUTION CONTROL EQUIPMENT

Parameter	Primary	Secondary
Type	None	None
Type Code (from APP.A)		
Manufacturer		
Model Number		
Pressure Drop (in. of water)		
Wet Scrubber Flow (GPM)		
Baghouse Air/Cloth Ratio (FPM)		

### VENTILATION AND BUILDING/AREA DATA

Enclosed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hood Type (from APP.B)	NA
Minimum Flow (acfm)	NA
Percent Capture Efficiency	NA
Building Height (ft)	35
Building/Area Length (ft)	600
Building/Area Width (ft)	200

### STACK DATA

Ground Elevation (ft)	2990
UTM X Coordinate (km)	592.2
UTM Y Coordinate (km)	4767.1
Stack Type (see note below)	03
Stack Exit Height from Ground Level (ft)	48
Stack Exit Diameter (ft)	0.83
Stack Exit Gas Flowrate (acfm)	4217
Stack Exit Temperature (°F)	734

### AIR POLLUTION EMISSIONS

Pollutant	CAS #	Emission Factor (see below)	Percent Control Efficiency	Estimated or Measured Emissions (lbs/hr)	Allowable Emissions		
					lbs/hr	tons/yr	Reference
PM						0.18	
PM <sub>10</sub>						0.18	
SO <sub>2</sub>						3.1	combined (3) gen
CO						1.38	
NO <sub>x</sub>						18.1	combined (3) gen
VOC						0.18	
Lead							
HAPs						0.002	

**Note:** Stack Type: 01 – Downward; 02 – Vertical (uncovered); 03 – Vertical (covered); 04 – Horizontal; 05 – Fugitive  
Emission Factor in lbs/units. Please use same hourly units given in fuel data section.

## SECTION 2: FUEL-BURNING EQUIPMENT

<b>DEQ USE ONLY</b>			
DEQ Plant ID Code		DEQ Stack ID Code	
DEQ Building Code		Primary SCC	
DEQ Segment Code		Secondary SCC	
DEQ Process Code			

### SECTION 2, PART A.

#### GENERAL INFORMATION

Process Code or Description ICOM 04 - Barrier Flightline Generator 01  
 Stack Description Gen 04  
 Building Description NA  
 Manufacturer Wisconsin Model V465D Date Installed \_\_\_\_\_  
 Date Last Modified \_\_\_\_\_

#### RATED CAPACITY (CHOOSE APPROPRIATE UNITS)

Million BTU/hr \_\_\_\_\_ 1000 lbs Steam/hr \_\_\_\_\_ Kilowatts 49.2 Horsepower \_\_\_\_\_  
 Burner Type \_\_\_\_\_ % Used for Process 100  
 (see note below) % Used for Space Heat NA

#### FUEL DATA

Parameter	Primary Fuel	Units	Secondary Fuel	Units
Fuel Code (see note below)	15		NA	
Percent Sulfur	0		0	
Percent Ash	0		0	
Percent Nitrogen	0		0	
Percent Carbon	0		0	
Percent Hydrogen	0		0	
Percent Moisture	0		0	
Heat Content (BTU/unit)	125,000	Gal	0	
Maximum Hourly Combustion Rate (units/hr)	0.168	MMBTU	0	
Normal Annual Combustion Rate (units/hr)	15.3	MMBTU	0	

#### Note:

Burner Type: 01 - Spread stoker  
 02 - Chain or Traveling Grate  
 03 - Hand Fired  
 04 - Cyclone Furnace  
 05 - Wet Bottom (pulverized coal)  
 06 - Dry Bottom (pulverized coal)  
 07 - Underfeed Stokers  
 08 - Tangentially Fired  
 09 - Horizontally Fired  
 10 - Axially Fired  
 11 - Other (specify): \_\_\_\_\_

Fuel Codes: 01 - Natural Gas  
 02 - #1 or #2 Fuel Oil  
 03 - #4 Fuel Oil  
 04 - #5 or #6 Fuel Oil  
 05 - Used Oil  
 06 - Wood Chips  
 07 - Wood Bark  
 08 - Wood Shavings  
 09 - Sander Dust  
 10 - Subbituminous Coal  
 11 - Bituminous Coal  
 12 - Anthracite Coal  
 13 - Lignite Coal  
 14 - Propane  
 15 - Other (specify): Gas

## SECTION 2, PART B.

### OPERATING DATA

Percent Fuel Consumption Per Quarter	
Dec – Feb	25
Mar – May	25
Jun – Aug	25
Sep – Nov	25

Operating Schedule	
Hours/Day	24
Days/Week	7
Weeks/Year	52

### POLLUTION CONTROL EQUIPMENT

Parameter	Primary	Secondary
Type	None	None
Type Code (from APP.A)		
Manufacturer		
Model Number		
Pressure Drop (in. of water)		
Wet Scrubber Flow (GPM)		
Baghouse Air/Cloth Ratio (FPM)		

### VENTILATION AND BUILDING/AREA DATA

Enclosed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hood Type (from APP.B)	NA
Minimum Flow (acfm)	NA
Percent Capture Efficiency	NA
Building Height (ft)	8
Building/Area Length (ft)	12
Building/Area Width (ft)	8

### STACK DATA

Ground Elevation (ft)	2990
UTM X Coordinate (km)	590.3
UTM Y Coordinate (km)	4767.5
Stack Type (see note below)	04
Stack Exit Height from Ground Level (ft)	8
Stack Exit Diameter (ft)	0.328
Stack Exit Gas Flowrate (acfm)	916
Stack Exit Temperature (°F)	1300

### AIR POLLUTION EMISSIONS

Pollutant	CAS #	Emission Factor (see below)	Percent Control Efficiency	Estimated or Measured Emissions (lbs/hr)	Allowable Emissions		
					lbs/hr	tons/yr	Reference
PM						0.006	
PM <sub>10</sub>						0.006	
SO <sub>2</sub>						0.0048	
CO						3.75	
NO <sub>x</sub>						0.048	
VOC						0.04	
Lead							
HAPs						0.0018	

Note: Stack Type: 01 – Downward; 02 – Vertical (uncovered); 03 – Vertical (covered); 04 – Horizontal; 05 – Fugitive  
Emission Factor in lbs/units. Please use same hourly units given in fuel data section.



## SECTION 2: FUEL-BURNING EQUIPMENT

<b>DEQ USE ONLY</b>			
DEQ Plant ID Code		DEQ Stack ID Code	
DEQ Building Code		Primary SCC	
DEQ Segment Code		Secondary SCC	
DEQ Process Code			

### SECTION 2, PART A.

#### GENERAL INFORMATION

Process Code or Description ICOM 05 - Barrier Flightline Generator 02  
 Stack Description Gen 05  
 Building Description NA  
 Manufacturer Wisconsin Model V465D Date Installed \_\_\_\_\_  
 Date Last Modified \_\_\_\_\_

#### RATED CAPACITY (CHOOSE APPROPRIATE UNITS)

Million BTU/hr \_\_\_\_\_ 1000 lbs Steam/hr \_\_\_\_\_ Kilowatts 49.2 Horsepower \_\_\_\_\_  
 Burner Type \_\_\_\_\_ % Used for Process 100  
 (see note below) % Used for Space Heat NA

#### FUEL DATA

Parameter	Primary Fuel	Units	Secondary Fuel	Units
Fuel Code (see note below)	15		NA	
Percent Sulfur	0		0	
Percent Ash	0		0	
Percent Nitrogen	0		0	
Percent Carbon	0		0	
Percent Hydrogen	0		0	
Percent Moisture	0		0	
Heat Content (BTU/unit)	125,000	Gal	0	
Maximum Hourly Combustion Rate (units/hr)	0.168	MMBTU	0	
Normal Annual Combustion Rate (units/hr)	15.3	MMBTU	0	

**Note:**

Burner Type: 01 - Spread stoker  
 02 - Chain or Traveling Grate  
 03 - Hand Fired  
 04 - Cyclone Furnace  
 05 - Wet Bottom (pulverized coal)  
 06 - Dry Bottom (pulverized coal)  
 07 - Underfeed Stokers  
 08 - Tangentially Fired  
 09 - Horizontally Fired  
 10 - Axially Fired  
 11 - Other (specify): \_\_\_\_\_

Fuel Codes: 01 - Natural Gas  
 02 - #1 or #2 Fuel Oil  
 03 - #4 Fuel Oil  
 04 - #5 or #6 Fuel Oil  
 05 - Used Oil  
 06 - Wood Chips  
 07 - Wood Bark  
 08 - Wood Shavings  
 09 - Sander Dust  
 10 - Subbituminous Coal  
 11 - Bituminous Coal  
 12 - Anthracite Coal  
 13 - Lignite Coal  
 14 - Propane  
 15 - Other (specify): Gas

## SECTION 2, PART B.

### OPERATING DATA

Percent Fuel Consumption Per Quarter	
Dec – Feb	25
Mar – May	25
Jun – Aug	25
Sep – Nov	25

Operating Schedule	
Hours/Day	24
Days/Week	7
Weeks/Year	52

### POLLUTION CONTROL EQUIPMENT

Parameter	Primary	Secondary
Type	None	None
Type Code (from APP.A)		
Manufacturer		
Model Number		
Pressure Drop (in. of water)		
Wet Scrubber Flow (GPM)		
Baghouse Air/Cloth Ratio (FPM)		

### VENTILATION AND BUILDING/AREA DATA

Enclosed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hood Type (from APP.B)	NA
Minimum Flow (acfm)	NA
Percent Capture Efficiency	NA
Building Height (ft)	8
Building/Area Length (ft)	12
Building/Area Width (ft)	8

### STACK DATA

Ground Elevation (ft)	2990
UTM X Coordinate (km)	590.3
UTM Y Coordinate (km)	4767.5
Stack Type (see note below)	04
Stack Exit Height from Ground Level (ft)	8
Stack Exit Diameter (ft)	0.328
Stack Exit Gas Flowrate (acfm)	916
Stack Exit Temperature (°F)	1300

### AIR POLLUTION EMISSIONS

Pollutant	CAS #	Emission Factor (see below)	Percent Control Efficiency	Estimated or Measured Emissions (lbs/hr)	Allowable Emissions		
					lbs/hr	tons/yr	Reference
PM						0.006	
PM <sub>10</sub>						0.006	
SO <sub>2</sub>						0.0048	
CO						3.75	
NO <sub>x</sub>						0.048	
VOC						0.04	
Lead							
HAPs						0.0018	

Note: Stack Type: 01 – Downward; 02 – Vertical (uncovered); 03 – Vertical (covered); 04 – Horizontal; 05 – Fugitive  
Emission Factor in lbs/units. Please use same hourly units given in fuel data section.

## SECTION 2: FUEL-BURNING EQUIPMENT

<b>DEQ USE ONLY</b>			
DEQ Plant ID Code		DEQ Stack ID Code	
DEQ Building Code		Primary SCC	
DEQ Segment Code		Secondary SCC	
DEQ Process Code			

### SECTION 2, PART A.

#### GENERAL INFORMATION

Process Code or Description ICOM 06 - Barrier Flightline Generator 03  
 Stack Description Gen 06  
 Building Description NA  
 Manufacturer Wisconsin Model V465D Date Installed \_\_\_\_\_  
 Date Last Modified \_\_\_\_\_

#### RATED CAPACITY (CHOOSE APPROPRIATE UNITS)

Million BTU/hr \_\_\_\_\_ 1000 lbs Steam/hr \_\_\_\_\_ Kilowatts 49.2 Horsepower \_\_\_\_\_  
 Burner Type \_\_\_\_\_ % Used for Process 100  
 (see note below) % Used for Space Heat NA

#### FUEL DATA

Parameter	Primary Fuel	Units	Secondary Fuel	Units
Fuel Code (see note below)	<u>15</u>		<u>NA</u>	
Percent Sulfur	<u>0</u>		<u>0</u>	
Percent Ash	<u>0</u>		<u>0</u>	
Percent Nitrogen	<u>0</u>		<u>0</u>	
Percent Carbon	<u>0</u>		<u>0</u>	
Percent Hydrogen	<u>0</u>		<u>0</u>	
Percent Moisture	<u>0</u>		<u>0</u>	
Heat Content (BTU/unit)	<u>125,000</u>	<u>Gal</u>	<u>0</u>	
Maximum Hourly Combustion Rate (units/hr)	<u>0.168</u>	<u>MMBTU</u>	<u>0</u>	
Normal Annual Combustion Rate (units/hr)	<u>15.3</u>	<u>MMBTU</u>	<u>0</u>	

#### Note:

Burner Type: 01 - Spread stoker  
 02 - Chain or Traveling Grate  
 03 - Hand Fired  
 04 - Cyclone Furnace  
 05 - Wet Bottom (pulverized coal)  
 06 - Dry Bottom (pulverized coal)  
 07 - Underfeed Stokers  
 08 - Tangentially Fired  
 09 - Horizontally Fired  
 10 - Axially Fired  
 11 - Other (specify): \_\_\_\_\_

Fuel Codes: 01 - Natural Gas  
 02 - #1 or #2 Fuel Oil  
 03 - #4 Fuel Oil  
 04 - #5 or #6 Fuel Oil  
 05 - Used Oil  
 06 - Wood Chips  
 07 - Wood Bark  
 08 - Wood Shavings  
 09 - Sander Dust  
 10 - Subbituminous Coal  
 11 - Bituminous Coal  
 12 - Anthracite Coal  
 13 - Lignite Coal  
 14 - Propane  
 15 - Other (specify): Gas



## SECTION 2, PART B.

### OPERATING DATA

Percent Fuel Consumption Per Quarter	
Dec – Feb	25
Mar – May	25
Jun – Aug	25
Sep – Nov	25

Operating Schedule	
Hours/Day	24
Days/Week	7
Weeks/Year	52

### POLLUTION CONTROL EQUIPMENT

Parameter	Primary	Secondary
Type	None	None
Type Code (from APP.A)		
Manufacturer		
Model Number		
Pressure Drop (in. of water)		
Wet Scrubber Flow (GPM)		
Baghouse Air/Cloth Ratio (FPM)		

### VENTILATION AND BUILDING/AREA DATA

Enclosed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hood Type (from APP.B)	NA
Minimum Flow (acfm)	NA
Percent Capture Efficiency	NA
Building Height (ft)	8
Building/Area Length (ft)	12
Building/Area Width (ft)	8

### STACK DATA

Ground Elevation (ft)	2990
UTM X Coordinate (km)	590.3
UTM Y Coordinate (km)	4767.5
Stack Type (see note below)	04
Stack Exit Height from Ground Level (ft)	8
Stack Exit Diameter (ft)	0.328
Stack Exit Gas Flowrate (acfm)	916
Stack Exit Temperature (°F)	1300

### AIR POLLUTION EMISSIONS

Pollutant	CAS #	Emission Factor (see below)	Percent Control Efficiency	Estimated or Measured Emissions (lbs/hr)	Allowable Emissions		
					lbs/hr	tons/yr	Reference
PM						0.006	
PM <sub>10</sub>						0.006	
SO <sub>2</sub>						0.0048	
CO						3.75	
NO <sub>x</sub>						0.048	
VOC						0.04	
Lead							
HAPs						0.0018	

Note: Stack Type: 01 – Downward; 02 – Vertical (uncovered); 03 – Vertical (covered); 04 – Horizontal; 05 – Fugitive  
Emission Factor in lbs/units. Please use same hourly units given in fuel data section.

## SECTION 2: FUEL-BURNING EQUIPMENT

<b>DEQ USE ONLY</b>			
DEQ Plant ID Code		DEQ Stack ID Code	
DEQ Building Code		Primary SCC	
DEQ Segment Code		Secondary SCC	
DEQ Process Code			

### SECTION 2, PART A.

#### GENERAL INFORMATION

Process Code or Description ICOM 07 - Barrier Flightline Generator 04  
 Stack Description Gen 07  
 Building Description NA  
 Manufacturer Wisconsin Model V465D Date Installed \_\_\_\_\_  
 Date Last Modified \_\_\_\_\_

#### RATED CAPACITY (CHOOSE APPROPRIATE UNITS)

Million BTU/hr \_\_\_\_\_ 1000 lbs Steam/hr \_\_\_\_\_ Kilowatts 49.2 Horsepower \_\_\_\_\_  
 Burner Type \_\_\_\_\_ % Used for Process 100  
 (see note below) % Used for Space Heat NA

#### FUEL DATA

Parameter	Primary Fuel	Units	Secondary Fuel	Units
Fuel Code (see note below)	15		NA	
Percent Sulfur	0		0	
Percent Ash	0		0	
Percent Nitrogen	0		0	
Percent Carbon	0		0	
Percent Hydrogen	0		0	
Percent Moisture	0		0	
Heat Content (BTU/unit)	125,000	Gal	0	
Maximum Hourly Combustion Rate (units/hr)	0.168	MMBTU	0	
Normal Annual Combustion Rate (units/hr)	15.3	MMBTU	0	

#### Note:

Burner Type: 01 - Spread stoker  
 02 - Chain or Traveling Grate  
 03 - Hand Fired  
 04 - Cyclone Furnace  
 05 - Wet Bottom (pulverized coal)  
 06 - Dry Bottom (pulverized coal)  
 07 - Underfeed Stokers  
 08 - Tangentially Fired  
 09 - Horizontally Fired  
 10 - Axially Fired  
 11 - Other (specify): \_\_\_\_\_

Fuel Codes: 01 - Natural Gas  
 02 - #1 or #2 Fuel Oil  
 03 - #4 Fuel Oil  
 04 - #5 or #6 Fuel Oil  
 05 - Used Oil  
 06 - Wood Chips  
 07 - Wood Bark  
 08 - Wood Shavings  
 09 - Sander Dust  
 10 - Subbituminous Coal  
 11 - Bituminous Coal  
 12 - Anthracite Coal  
 13 - Lignite Coal  
 14 - Propane  
 15 - Other (specify): Gas

## SECTION 2, PART B.

### OPERATING DATA

Percent Fuel Consumption Per Quarter	
Dec – Feb	25
Mar – May	25
Jun – Aug	25
Sep – Nov	25

Operating Schedule	
Hours/Day	24
Days/Week	7
Weeks/Year	52

### POLLUTION CONTROL EQUIPMENT

Parameter	Primary	Secondary
Type	None	None
Type Code (from APP.A)		
Manufacturer		
Model Number		
Pressure Drop (in. of water)		
Wet Scrubber Flow (GPM)		
Baghouse Air/Cloth Ratio (FPM)		

### VENTILATION AND BUILDING/AREA DATA

Enclosed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hood Type (from APP.B)	NA
Minimum Flow (acfm)	NA
Percent Capture Efficiency	NA
Building Height (ft)	8
Building/Area Length (ft)	12
Building/Area Width (ft)	8

### STACK DATA

Ground Elevation (ft)	2990
UTM X Coordinate (km)	590.3
UTM Y Coordinate (km)	4767.5
Stack Type (see note below)	04
Stack Exit Height from Ground Level (ft)	8
Stack Exit Diameter (ft)	0.328
Stack Exit Gas Flowrate (acfm)	916
Stack Exit Temperature (°F)	1300

### AIR POLLUTION EMISSIONS

Pollutant	CAS #	Emission Factor (see below)	Percent Control Efficiency	Estimated or Measured Emissions (lbs/hr)	Allowable Emissions		
					lbs/hr	tons/yr	Reference
PM						0.006	
PM <sub>10</sub>						0.006	
SO <sub>2</sub>						0.0048	
CO						3.75	
NO <sub>x</sub>						0.048	
VOC						0.04	
Lead							
HAPs						0.0018	

Note: Stack Type: 01 – Downward; 02 – Vertical (uncovered); 03 – Vertical (covered); 04 – Horizontal; 05 – Fugitive  
Emission Factor in lbs/units. Please use same hourly units given in fuel data section.



## 1.5 Jet Engine Testing Forms

Jet engine testing is performed at two facilities, Hush House I and Hush House II. Two engine types are currently permitted for testing at MHAFB, the F-100-220 and the F-100-229. MHAFB submitted a formal written request to DEQ in December 2006 for jet engine testing operational flexibility to be able to test any engine type that may be on the Base. Table 1.5-1 lists the permitted jet engine testing sources.

**TABLE 1.5-1**  
**Jet Engine Testing**

<b>Process Code</b>	<b>Process Description<sup>1</sup></b>	<b>Emission Estimate Documentation<sup>2</sup></b>
JET-01	Hush House I and II combined	Section 4.5

**Notes:**

<sup>1</sup> Refer to Section 2 of the permit application for additional detail.

<sup>2</sup> This column denotes the permit application section number of the emissions estimate documentation.

## SECTION 2: FUEL-BURNING EQUIPMENT

DEQ USE ONLY	
DEQ Plant ID Code _____	DEQ Stack ID Code _____
DEQ Building Code _____	Primary SCC _____
DEQ Segment Code _____	Secondary SCC _____
DEQ Process Code _____	

### SECTION 2, PART A.

#### GENERAL INFORMATION

Process Code or Description Jet Engine Testing  
 Stack Description Blast Deflector  
 Building Description Hush House No. 1 (BLDG 1344) Hush House No. 2 (BLDG 270)  
 Manufacturer Various Model Various Date Installed 1986  
 Date Last Modified \_\_\_\_\_

#### RATED CAPACITY (CHOOSE APPROPRIATE UNITS)

Million BTU/hr NA 1000 lbs Steam/hr \_\_\_\_\_ Kilowatts \_\_\_\_\_ Horsepower \_\_\_\_\_  
 Burner Type NA % Used for Process \_\_\_\_\_  
 (see note below) % Used for Space Heat \_\_\_\_\_

#### FUEL DATA

Parameter	Primary Fuel	Units	Secondary Fuel	Units
Fuel Code (see note below)	15			
Percent Sulfur				
Percent Ash				
Percent Nitrogen				
Percent Carbon				
Percent Hydrogen				
Percent Moisture				
Heat Content (BTU/unit)				
Maximum Hourly Combustion Rate (units/hr)				
Normal Annual Combustion Rate (units/hr)				

Note:

Burner Type: 01 - Spread stoker  
 02 - Chain or Traveling Grate  
 03 - Hand Fired  
 04 - Cyclone Furnace  
 05 - Wet Bottom (pulverized coal)  
 06 - Dry Bottom (pulverized coal)  
 07 - Underfeed Stokers  
 08 - Tangentially Fired  
 09 - Horizontally Fired  
 10 - Axially Fired  
 11 - Other (specify): \_\_\_\_\_

Fuel Codes: 01 - Natural Gas  
 02 - #1 or #2 Fuel Oil  
 03 - #4 Fuel Oil  
 04 - #5 or #6 Fuel Oil  
 05 - Used Oil  
 06 - Wood Chips  
 07 - Wood Bark  
 08 - Wood Shavings  
 09 - Sander Dust  
 10 - Subbituminous Coal  
 11 - Bituminous Coal  
 12 - Anthracite Coal  
 13 - Lignite Coal  
 14 - Propane  
 15 - Other (specify): JP-8

## SECTION 2, PART B.

### OPERATING DATA

Percent Fuel Consumption Per Quarter	
Dec – Feb	25
Mar – May	25
Jun – Aug	25
Sep – Nov	25

Operating Schedule	
Hours/Day	24
Days/Week	7
Weeks/Year	52

### POLLUTION CONTROL EQUIPMENT

Parameter	Primary	Secondary
Type	None	None
Type Code (from APP.A)		
Manufacturer		
Model Number		
Pressure Drop (in. of water)		
Wet Scrubber Flow (GPM)		
Baghouse Air/Cloth Ratio (FPM)		

### VENTILATION AND BUILDING/AREA DATA

Enclosed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hood Type (from APP.B)	None
Minimum Flow (acfm)	NA
Percent Capture Efficiency	NA
Building Height (ft)	25
Building/Area Length (ft)	206
Building/Area Width (ft)	98

### STACK DATA

Ground Elevation (ft)	2990
UTM X Coordinate (km)	591.0
UTM Y Coordinate (km)	4767.58
Stack Type (see note below)	02
Stack Exit Height from Ground Level (ft)	15
Stack Exit Diameter (ft)	20
Stack Exit Gas Flowrate (acfm)	Varies
Stack Exit Temperature (°F)	Varies

### AIR POLLUTION EMISSIONS

Pollutant	CAS #	Emission Factor (see below)	Percent Control Efficiency	Estimated or Measured Emissions (lbs/hr)	Allowable Emissions		
					lbs/hr	tons/yr	Reference
PM						4.0	
PM <sub>10</sub>						4.0	
SO <sub>2</sub>						1.5	
CO						63	
NO <sub>x</sub>						85	
VOC						13	
Lead							
HAPs						0.46	

Note: Stack Type: 01 – Downward; 02 – Vertical (uncovered); 03 – Vertical (covered); 04 – Horizontal; 05 – Fugitive  
Emission Factor in lbs/units. Please use same hourly units given in fuel data section.



## 1.6 Surface Coating Forms

This category includes painting operations conducted in spray booths, outside the hangar doors, and static displays. Table 1.6-1 lists the permitted surface coating sources.

**TABLE 1.6-1**  
Surface Coating Description

Process Code	Process Description <sup>1</sup>	Emission Estimate Documentation <sup>2</sup>
SC-01	Large Paint Booth (Building 1330)	Section 4.6
SC-02	Small Paint Booth (Building 1330)	Section 4.6
SC-03	Flightline Open-Area Spraying	Section 4.6
SC-04	Transportation Paint Booth (Building 1100)	Section 4.6

Notes:

<sup>1</sup> Refer to Section 2 of the permit application for additional detail.

<sup>2</sup> This column denotes the permit application section number of the emissions estimate documentation.

## SECTION 3: PROCESS AND MANUFACTURING OPERATIONS

DEQ USE ONLY	
DEQ Plant ID Code	DEQ Stack ID Code
DEQ Building Code	Primary SCC
DEQ Segment Code	Secondary SCC
DEQ Process Code	

### SECTION 3, PART A.

#### GENERAL INFORMATION

Process Code or Description: Surface Coating 01 - Large Aircraft Paint Booth  
 Stack Description: Four Stacks, Identical  
 Building Description: Building 1330  
 Manufacturer: JBI, Inc      Model: NA      Date Installed: 1995  
 Date Last Modified:

#### PROCESSING DATA

Process Stream	Material Description	Maximum Hourly Rate	Actual Hourly Rate	Units
Input				
Product Output				
Waste Output				
Recycle				

#### POTENTIAL HAPS IN PROCESS STREAM(S)

HAP Description	HAP CAS Number	Fraction In Input Stream by Weight	Fraction In Product Stream by Weight	Fraction In Waste Stream by Weight	Fraction In Recycle Stream by Weight

## SECTION 3, PART B.

### OPERATING DATA

Percent Fuel Consumption Per Quarter	
Dec – Feb	25
Mar – May	25
Jun – Aug	25
Sep – Nov	25

Operating Schedule	
Hours/Day	24
Days/Week	7
Weeks/Year	52

### POLLUTION CONTROL EQUIPMENT

Parameter	Primary	Secondary
Type	GAC Filters	Fiber Filters
Type Code (from APP.A)		
Manufacturer		
Model Number		
Pressure Drop (in. of water)		
Wet Scrubber Flow (GPM)		
Baghouse Air/Cloth Ration (FPM)		

### VENTILATION AND BUILDING/AREA DATA

Enclosed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hood Type (from APP.B)	
Minimum Flow (acfm)	
Percent Capture Efficiency	
Building Height (ft)	48
Building/Area Length (ft)	296
Building/Area Width (ft)	128

### STACK DATA

Ground Elevation (ft)	2990
UTM X Coordinate (km)	591.26
UTM Y Coordinate (km)	4767.52
Stack Type (see note below)	03
Stack Exit Height from Ground Level (ft)	51
Stack Exit Diameter (ft)	3.0
Stack Exit Gas Flowrate (acfm)	21900
Stack Exit Temperature (°F)	80

### AIR POLLUTION EMISSIONS

Pollutant	CAS #	Emission Factor (see below)	Percent Control Efficiency	Estimated or Measured Emissions (lbs/hr)	Allowable Emissions		
					lbs/hr	tons/yr	Reference
PM						0.078	
PM <sub>10</sub>						0.078	
SO <sub>2</sub>							
CO							
NO <sub>x</sub>							
VOC						0.015	
Lead							
HAPs						0.0227	

Note: Stack Type: 01 – Downward; 02 – Vertical (uncovered); 03 – Vertical (covered); 04 – Horizontal; 05 – Fugitive  
Emission Factor in lbs/units. Please use same hourly units given in fuel data section.



## SECTION 3: PROCESS AND MANUFACTURING OPERATIONS

DEQ USE ONLY	
DEQ Plant ID Code	DEQ Stack ID Code
DEQ Building Code	Primary SCC
DEQ Segment Code	Secondary SCC
DEQ Process Code	

### SECTION 3, PART A.

#### GENERAL INFORMATION

Process Code or Description: Surface Coating 02 - Small Parts Paint Booth  
 Stack Description: Stack  
 Building Description: Building 1330  
 Manufacturer: JBI, Inc      Model: NA      Date Installed: 1995  
 Date Last Modified:

#### PROCESSING DATA

Process Stream	Material Description	Maximum Hourly Rate	Actual Hourly Rate	Units
Input				
Product Output				
Waste Output				
Recycle				

#### POTENTIAL HAPS IN PROCESS STREAM(S)

HAP Description	HAP CAS Number	Fraction In Input Stream by Weight	Fraction In Product Stream by Weight	Fraction in Waste Stream by Weight	Fraction in Recycle Stream by Weight

## SECTION 3, PART B.

### OPERATING DATA

Percent Fuel Consumption Per Quarter	
Dec – Feb	25
Mar – May	25
Jun – Aug	25
Sep – Nov	25

Operating Schedule	
Hours/Day	24
Days/Week	7
Weeks/Year	52

### POLLUTION CONTROL EQUIPMENT

Parameter	Primary	Secondary
Type	Fiber Filters	
Type Code (from APP.A)		
Manufacturer		
Model Number		
Pressure Drop (in. of water)		
Wet Scrubber Flow (GPM)		
Baghouse Air/Cloth Ratio (FPM)		

### VENTILATION AND BUILDING/AREA DATA

Enclosed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hood Type (from APP.B)	
Minimum Flow (acfm)	
Percent Capture Efficiency	
Building Height (ft)	48
Building/Area Length (ft)	296
Building/Area Width (ft)	128

### STACK DATA

Ground Elevation (ft)	2990
UTM X Coordinate (km)	591.26
UTM Y Coordinate (km)	4767.52
Stack Type (see note below)	03
Stack Exit Height from Ground Level (ft)	51
Stack Exit Diameter (ft)	3.0
Stack Exit Gas Flowrate (acfm)	16400
Stack Exit Temperature (°F)	80

### AIR POLLUTION EMISSIONS

Pollutant	CAS #	Emission Factor (see below)	Percent Control Efficiency	Estimated or Measured Emissions (lbs/hr)	Allowable Emissions		
					lbs/hr	tons/yr	Reference
PM						0.044	
PM <sub>10</sub>						0.044	
SO <sub>2</sub>							
CO							
NO <sub>x</sub>							
VOC						0.0088	
Lead							
HAPs						0.0248	

**Note:** Stack Type: 01 – Downward; 02 – Vertical (uncovered); 03 – Vertical (covered); 04 – Horizontal; 05 – Fugitive  
Emission Factor in lbs/units. Please use same hourly units given in fuel data section.

## SECTION 3: PROCESS AND MANUFACTURING OPERATIONS

<b>DEQ USE ONLY</b>	
DEQ Plant ID Code	DEQ Stack ID Code
DEQ Building Code	Primary SCC
DEQ Segment Code	Secondary SCC
DEQ Process Code	

### SECTION 3, PART A.

#### GENERAL INFORMATION

Process Code or Description      Surface Coating 03 - Flightline Open-Area Spraying  
Stack Description      NA  
Building Description      Aircraft Staging Area  
Manufacturer      Model      Date Installed  
Date Last Modified

#### PROCESSING DATA

Process Stream	Material Description	Maximum Hourly Rate	Actual Hourly Rate	Units
Input	Paint	NA	NA	NA
Product Output	Painted Vehicles	NA	NA	NA
Waste Output				
Recycle				

#### POTENTIAL HAPS IN PROCESS STREAM(S)

HAP Description	HAP CAS Number	Fraction In Input Stream by Weight	Fraction In Product Stream by Weight	Fraction In Waste Stream by Weight	Fraction In Recycle Stream by Weight



## SECTION 3, PART B.

### OPERATING DATA

Percent Fuel Consumption Per Quarter	
Dec – Feb	25
Mar – May	25
Jun – Aug	25
Sep – Nov	25

Operating Schedule	
Hours/Day	24
Days/Week	7
Weeks/Year	52

### POLLUTION CONTROL EQUIPMENT

Parameter	Primary	Secondary
Type	None	None
Type Code (from APP.A)		
Manufacturer		
Model Number		
Pressure Drop (in. of water)		
Wet Scrubber Flow (GPM)		
Baghouse Air/Cloth Ratio (FPM)		

### VENTILATION AND BUILDING/AREA DATA

Enclosed?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Hood Type (from APP.B)	NA
Minimum Flow (acfm)	NA
Percent Capture Efficiency	NA
Building Height (ft)	NA
Building/Area Length (ft)	NA
Building/Area Width (ft)	NA

### STACK DATA

Ground Elevation (ft)	2990
UTM X Coordinate (km)	592.22
UTM Y Coordinate (km)	4767.07
Stack Type (see note below)	NA
Stack Exit Height from Ground Level (ft)	NA
Stack Exit Diameter (ft)	NA
Stack Exit Gas Flowrate (acfm)	NA
Stack Exit Temperature (°F)	NA

### AIR POLLUTION EMISSIONS

Pollutant	CAS #	Emission Factor (see below)	Percent Control Efficiency	Estimated or Measured Emissions (lbs/hr)	Allowable Emissions		
					lbs/hr	tons/yr	Reference
PM							
PM <sub>10</sub>							
SO <sub>2</sub>							
CO							
NO <sub>x</sub>							
VOC						1.5	
Lead							
HAPs							

**Note:** Stack Type: 01 – Downward; 02 – Vertical (uncovered); 03 – Vertical (covered); 04 – Horizontal; 05 – Fugitive  
Emission Factor in lbs/units. Please use same hourly units given in fuel data section.

## SECTION 3: PROCESS AND MANUFACTURING OPERATIONS

DEQ USE ONLY	
DEQ Plant ID Code	DEQ Stack ID Code
DEQ Building Code	Primary SCC
DEQ Segment Code	Secondary SCC
DEQ Process Code	

### SECTION 3, PART A.

#### GENERAL INFORMATION

Process Code or Description	Surface Coating 04 - Transportation Paint Booth		
Stack Description			
Building Description	Building 1100		
Manufacturer	Model	Date Installed	
		Date Last Modified	

#### PROCESSING DATA

Process Stream	Material Description	Maximum Hourly Rate	Actual Hourly Rate	Units
Input	Paint	NA	NA	NA
Product Output	Painted Vehicles	NA	NA	NA
Waste Output				
Recycle				

#### POTENTIAL HAPS IN PROCESS STREAM(S)

HAP Description	HAP CAS Number	Fraction In Input Stream by Weight	Fraction In Product Stream by Weight	Fraction in Waste Stream by Weight	Fraction in Recycle Stream by Weight

## SECTION 3, PART B.

### OPERATING DATA

Percent Fuel Consumption Per Quarter	
Dec – Feb	25
Mar – May	25
Jun – Aug	25
Sep – Nov	25

Operating Schedule	
Hours/Day	24
Days/Week	7
Weeks/Year	52

### POLLUTION CONTROL EQUIPMENT

Parameter	Primary	Secondary
Type	AG-28 Fiberglass	None
Type Code (from APP.A)		
Manufacturer		
Model Number		
Pressure Drop (in. of water)		
Wet Scrubber Flow (GPM)		
Baghouse Air/Cloth Ratio (FPM)		

### VENTILATION AND BUILDING/AREA DATA

Enclosed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Hood Type (from APP.B)	NA
Minimum Flow (acfm)	NA
Percent Capture Efficiency	NA
Building Height (ft)	16
Building/Area Length (ft)	50
Building/Area Width (ft)	16

### STACK DATA

Ground Elevation (ft)	2990
UTM X Coordinate (km)	592.22
UTM Y Coordinate (km)	4767.07
Stack Type (see note below)	03
Stack Exit Height from Ground Level (ft)	30
Stack Exit Diameter (ft)	4.0
Stack Exit Gas Flowrate (acfm)	25600
Stack Exit Temperature (°F)	70

### AIR POLLUTION EMISSIONS

Pollutant	CAS #	Emission Factor (see below)	Percent Control Efficiency	Estimated or Measured Emissions (lbs/hr)	Allowable Emissions		
					lbs/hr	tons/yr	Reference
PM							
PM <sub>10</sub>							
SO <sub>2</sub>							
CO							
NO <sub>x</sub>							
VOC						4.0	
Lead							
HAPs							

**Note:** Stack Type: 01 – Downward; 02 – Vertical (uncovered); 03 – Vertical (covered); 04 – Horizontal; 05 – Fugitive Emission Factor in lbs/units. Please use same hourly units given in fuel data section.



## 1.7 Fugitive Dust Forms

This category includes on the Base operations resulting in fugitive dust emissions. Table 1.7-1 lists the fugitive dust sources.

**TABLE 1.7-1**  
Fugitive Dust

Process Code	Process Description <sup>1</sup>	Emission Estimate Documentation <sup>2</sup>
FD-01	Landfill Operations (Dozing and Grading)	Section 4.7
FD-02	Paved and Unpaved Roads	Section 4.7

Notes:

<sup>1</sup> Refer to Section 2 of the permit application for additional detail.

<sup>2</sup> This column denotes the permit application section number of the emissions estimate documentation.

## SECTION 7: SOLID MATERIAL TRANSPORT, HANDLING, AND STORAGE

DEQ USE ONLY	
DEQ Plant ID Code	DEQ Stack ID Code
DEQ Building Code	Primary SCC
DEQ Segment Code	Secondary SCC
DEQ Process Code	

### SECTION 7, PART A.

#### GENERAL INFORMATION

Process Code or Description Landfill Operations (Dozing/Grading)  
Stack Description NA  
Building Description NA  
Date Installed 1969 or Date Last Modified \_\_\_\_\_  
Material Description \_\_\_\_\_

#### MATERIAL TRANSFER RATES

Maximum Hourly Transfer Rate (units/hr) 9 hr/day  
Normal Hourly Transfer Rate (units/hr) \_\_\_\_\_  
Normal Annual Transfer Rate (units/yr) 2340  
Unit of Measure hr

#### BELT CONVEYOR/VEHICLE TRANSFER

Number of Transfers \_\_\_\_\_ Material Moisture Content (weight %) 7.9 Maximum Hourly Wind Speed (mph) \_\_\_\_\_  
Conveyors Enclosed? ☐ Yes ☐ No Conveyors in Buildings? ☐ Yes ☐ No Average Hourly Wind Speed (mph) \_\_\_\_\_  
Transfers Enclosed? ☐ Yes ☐ No Transfers in Buildings? ☐ Yes ☐ No

#### PNEUMATIC CONVEYOR TRANSFERS

Material Moisture Content (weight %) \_\_\_\_\_  
Primary Separator Type \_\_\_\_\_ Primary Separator % Efficiency \_\_\_\_\_  
Secondary Separator Type \_\_\_\_\_ Secondary Separator % Efficiency \_\_\_\_\_

#### MATERIAL STORAGE DATA

Pile? ☐ Yes ☐ No Storage Capacity \_\_\_\_\_ Pile Length (ft) \_\_\_\_\_  
Silo? ☐ Yes ☐ No Storage Capacity Units \_\_\_\_\_ Pile Width (ft) \_\_\_\_\_  
Other Storage Type Description \_\_\_\_\_ Pile Height (ft) \_\_\_\_\_

#### MATERIAL DATA

HAP Description	HAP CAS Number	HAP Fraction in Material by Weight

## SECTION 7, PART B.

### OPERATING DATA

Percent Fuel Consumption Per Quarter	
Dec – Feb	25
Mar – May	25
Jun – Aug	25
Sep – Nov	25

Operating Schedule	
Hours/Day	9
Days/Week	5
Weeks/Year	52

### POLLUTION CONTROL EQUIPMENT

Parameter	Primary	Secondary
Type	NA	NA
Type Code (from APP.A)		
Manufacturer		
Model Number		
Pressure Drop (in. of water)		
Wet Scrubber Flow (GPM)		
Baghouse Air/Cloth Ratio (FPM)		

### VENTILATION AND BUILDING/AREA DATA

Enclosed?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Hood Type (from APP.B)	
Minimum Flow (acfm)	
Percent Capture Efficiency	
Building Height (ft)	
Building/Area Length (ft)	
Building/Area Width (ft)	

### STACK DATA

Ground Elevation (ft)	
UTM X Coordinate (km)	
UTM Y Coordinate (km)	
Stack Type (see note below)	
Stack Exit Height from Ground Level (ft)	
Stack Exit Diameter (ft)	
Stack Exit Gas Flowrate (acfm)	
Stack Exit Temperature (°F)	

### AIR POLLUTION EMISSIONS

Pollutant	CAS #	Emission Factor (see below)	Percent Control Efficiency	Estimated or Measured Emissions (lbs/hr)	Allowable Emissions		
					lbs/hr	tons/yr	Reference
PM				9.09			
PM <sub>10</sub>				9.09			
SO <sub>2</sub>							
CO				0.22			
NO <sub>x</sub>							
VOC							
Lead							
HAPs				0.36			

**Note:** Stack Type: 01 – Downward; 02 – Vertical (uncovered); 03 – Vertical (covered); 04 – Horizontal; 05 – Fugitive  
Emission Factor in lbs/units. Please use same hourly units given in fuel data section.



## SECTION 8: FUGITIVE ROAD DUST SOURCES

DEQ USE ONLY			
DEQ Plant ID Code		DEQ Stack ID Code	
DEQ Building Code		Primary SCC	
DEQ Segment Code		Secondary SCC	
DEQ Process Code			

### SECTION 8, PART A.

#### GENERAL INFORMATION

Road Description	Paved Roads			
Length (ft)	<u>Beginning Coordinates</u>		<u>End Coordinates</u>	
Width (ft)	<u>UTM-X (km)</u>	<u>UTM-Y (km)</u>	<u>UTM-X (km)</u>	<u>UTM-Y (km)</u>
Paved?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	593.21	4769.03	593.21 4769.03

#### DATA FOR ALL ROADS – PAVED AND UNPAVED

Vehicle Description	Number of Roundtrips Per Day	Vehicle Miles Traveled Per Day	Number of Days Used Per Year	Average Vehicle Speed (mph)	Surface Silt Content (% Weight)
Cars	5810	11621	365	30	NA
Pickups	7112	14225	365	30	NA
Trucks (2 and 3 axel)	90	89	365	30	NA
Motorcycles	16	31	365	30	NA

Vehicle Description	Vehicle Empty Weight (tons)	Vehicle Full Weight (tons)
Cars	2	NA
Pickups	3	NA
Trucks (2 and 3 axel)	4.61	NA
Motorcycles	0.75	NA

#### DATA FOR UNPAVED ROADS

Number of Wheels Per Vehicle	Number of Days >0.01 Inches Precipitation
NA	NA
NA	Na
NA	NA
NA	NA

#### DATA FOR PAVED ROADS

Number of Lanes	Industrial Augmentation Factor	Dust Loading (lb/mile)
2	1	7.4 (g/m <sup>2</sup> )

#### ROAD DUST CHEMICAL DATA

HAP Description	HAP CAS Number	HAP Fraction in Road Dust by Weight
NA	NA	NA

## SECTION 8, PART B.

### OPERATING DATA

Percent Fuel Consumption Per Quarter	
Dec – Feb	25
Mar – May	25
Jun – Aug	25
Sep – Nov	25

Operating Schedule	
Hours/Day	24
Days/Week	7
Weeks/Year	52

### FUGITIVE DUST CONTROL DATA

Parameter	Primary	Secondary
Control Description	NA	NA
Control Code (Appendix A)		
Minimum Daily Applications of Control		
Maximum Daily Applications of Control		
Average Annual Applications of Control		
Amount Applied (units/application)		
Units for Application Amount		

### AIR POLLUTANT EMISSIONS

Pollutant	CAS Number	Emission Factor (see below)	Percent Control Efficiency	Estimated or Measured Emissions (lbs/hr)	Allowable Emissions		
					Lbs/Hr	Tons /Yr	Reference
PM				500			
PM-10				97			
Lead				0.01			

Note: In lbs./unit of vehicle miles traveled (VMT).



## SECTION 8: FUGITIVE ROAD DUST SOURCES

DEQ USE ONLY	
DEQ Plant ID Code _____	DEQ Stack ID Code _____
DEQ Building Code _____	Primary SCC _____
DEQ Segment Code _____	Secondary SCC _____
DEQ Process Code _____	

### SECTION 8, PART A.

#### GENERAL INFORMATION

Road Description	Unpaved Roads				
Length (ft)	Beginning Coordinates		End Coordinates		
Width (ft)	UTM-X (km)	UTM-Y (km)	UTM-X (km)	UTM-Y (km)	
Paved?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	593.21	4769.03	593.21	4769.03

#### DATA FOR ALL ROADS – PAVED AND UNPAVED

Vehicle Description	Number of Roundtrips Per Day	Vehicle Miles Traveled Per Day	Number of Days Used Per Year	Average Vehicle Speed (mph)	Surface Silt Content (% Weight)
Cars	29	29	365	10	6.4
Pickups	32	31	365	10	6.4
Trucks (2 axel)	60	60	365	10	6.4
Trucks (3 axel)	10	10	365	10	6.4

Vehicle Description	Vehicle Empty Weight (tons)	Vehicle Full Weight (tons)
Cars	2	NA
Pickups	3	NA
Trucks (2 and 3 axel)	4.25	NA
Motorcycles	6	NA

#### DATA FOR UNPAVED ROADS

Number of Wheels Per Vehicle	Number of Days >0.01 Inches Precipitation
4	72
4	72
6	72
18	72

#### DATA FOR PAVED ROADS

Number of Lanes	Industrial Augmentation Factor	Dust Loading (lb/mile)
NA	NA	NA

#### ROAD DUST CHEMICAL DATA

HAP Description	HAP CAS Number	HAP Fraction in Road Dust by Weight
NA	NA	NA



## SECTION 8, PART B.

### OPERATING DATA

Percent Fuel Consumption Per Quarter	
Dec – Feb	25
Mar – May	25
Jun – Aug	25
Sep – Nov	25

Operating Schedule	
Hours/Day	24
Days/Week	7
Weeks/Year	52

### FUGITIVE DUST CONTROL DATA

Parameter
Control Description
Control Code (Appendix A)
Minimum Daily Applications of Control
Maximum Daily Applications of Control
Average Annual Applications of Control
Amount Applied (units/application)
Units for Application Amount

Primary
NA

Secondary
NA

### AIR POLLUTANT EMISSIONS

Pollutant	CAS Number	Emission Factor (see below)	Percent Control Efficiency	Estimated or Measured Emissions (lbs/hr)	Allowable Emissions		
					Lbs/Hr	Tons /Yr	Reference
PM				14			
PM-10				3.7			
Lead				0.00017			

Note: In lbs./unit of vehicle miles traveled (VMT).

## 2.0 General Information for the Facility

### 2.1 Introduction

#### IDAPA 314 Required Standard Application Form and Required Information.

##### 02. General Information for the Facility.

- a. *Provide identifying information, including the name, address and telephone number of:*
  - i. *The owner;*
  - ii. *The operator;*
  - iii. *The facility where the Tier I source is located;*
  - iv. *The registered agent of the owner, if any;*
  - v. *The registered agent of the operator, if any;*
  - vi. *The responsible official, if other than the owner or operator; and*
  - vii. *The contact person.*
- b. *Provide a general description of the processes used and products produced by the facility where the Tier I source is located, including any associated with each requested alternative operating scenario and trading scenario. The description shall include narrative and applicable SIC codes.*
- c. *Provide a general description of each process line affecting a Tier I source.*

The information required by IDAPA 314.02.a is included in the General Information Form found in Section 1.0, Application Forms, of this application. The information required by IDAPA 314.02.b and c is provided in this section and includes a brief description of the primary emission sources at MHAFB. MHAFB is host to a variety of organizations providing scientific and technical support to agencies throughout the USAF and the Department of Defense (DoD). IDEQ issued MHAFB SIC code 9711, defined as National Security or DoD, USAF.

Process	SIC Code	SIC Description
National Security	9711	United States Air Force

### 2.2 Abrasive Blasting

Only one permitted abrasive cleaner or "bead blaster" is located at MHAFB, which vents to the atmosphere. This bead blaster is a self-contained hopper containing a cyclone and tube fabric filters. This bead blaster is located inside Building 1330. The only opening is located



outside the hopper, at the point of discharge, before it drops into a 55-gallon drum. The bead blaster unit is only used intermittently throughout the year. The bead blaster has an annual operating limit of 4,500 hours per year.

This bead blaster is required to maintain an air quality PTC. Bead blasting is a surface coating removal process of aircraft parts using either plastic or glass beads. Compressed air propels the beads through a high-pressure nozzle to remove surface coating upon contact of the parts surface. The beads and resulting chips of surface coatings pass through cyclone and tube fabric filters that separate the beads (to be reused) from the chips as well as limit paint chips containing hexavalent chromium ( $\text{Cr}^{+6}$ ) ions from escaping into the atmosphere.

## **2.3 External Combustion Engines**

At this time, there are 636 ECOM sources at MHAFB. The total number of ECOM sources change annually due primarily from building improvements and new building construction. Currently, the only ECOM sources permitted are four hospital dual-fueled boilers (Building 6000). Three are Kewanee hospital boilers each with a heat input rating of 5,231,000 Btu/hr and one is a Hurst hospital boiler with a heat input rating of 1,050,000 Btu/hr. The four hospital boilers are permitted to operate distillate fuel not to exceed 500 hours per year per boiler. No operating limit applies when the boilers combust natural gas. Sulfur oxide ( $\text{SO}_x$ ) emissions are stated as a permit condition not to exceed 2.1 tpy per any consecutive 12-month period when combusting distillate fuel.

## **2.4 Internal Combustion Engines**

At this time, there are 57 ICOM sources at MHAFB. Seven of these ICOM sources are permitted; four flightline barrier generators and three hospital generators. During the renewal process, MHAFB determined that the generator located at the WWTP does not meet the criteria for being an insignificant activity. MHAFB submitted a self discovery letter in February 2007 and will be submitting a PTC application also. The remaining ICOM sources are insignificant based on size or production rate. The ICOM sources operate on diesel, natural gas, or gasoline.

### **2.4.1 Flightline Generators**

On August 22, 2006, MHAFB submitted a PTC application to address four barrier generators located on the flightline. The flightline barrier generators work in tandem, two at each end of the runway. Each barrier generator has a 65.9-horsepower (hp) rating and is tested for 15 minutes per day or approximately 92 hours per year. The flightline generators combust gasoline and are used to reset the arrestor cables. In the event that an aircraft must make an emergency stop, the pilot deploys a hook that snags an arrestor cable as the aircraft passes, stopping the aircraft. The arrestor cables must be reset immediately after each use. MHAFB established a self-imposed limit based on potential hours of operation for each barrier generator limited to 250 hours per year.



## 2.4.2 Hospital Generators

Three permitted hospital generators are used to provide emergency power to the hospital in the event of a power failure. Each emergency generator is rated at 750 kW and limited not to exceed 500 hours per year. These three generators operate on No. 2 diesel fuel with the capability of running independently or in unison.

## 2.5 Jet Engine Testing

MHAFB performs jet engine testing at two facilities; Hush House I (Building No. 1344) and Hush House II (Building No. 270). The two buildings are located at opposite ends of the runway and are similar buildings in design containing augmentor tubes for aircraft exhaust. The testing performed at Hush House I is on engines removed from aircraft and mounted on a test stand (stationary source) for adjustment and/or repair. After completion of engine adjustments and repairs, testing commences at idle, approach, intermediate, military, and/or afterburner power settings for a short duration.

Jet engine testing performed at Hush House II is mostly used for engines mounted in the aircraft. Testing of engines mounted in the aircraft are considered mobile sources. However, Hush House II has the ability to test engine aircraft mounted on a test stand by removing the engine from the aircraft. This Tier I permit applies to jet engine testing for stationary sources affixed to a test stand.

Currently two engine types are permitted for testing at MHAFB, the F-100-PW-220 and the F-100-PW-229. The two existing engine types tested combust JP-8 aviation fuel. MHAFB is requesting operational flexibility to be able to test any engine type that may be on the Base. Tier I jet engine testing permit limits will remain the same and be used as a "bubble limit." MHAFB is proposing to calculate emissions each month based off each engine type for a cumulative total. The cumulative emission totals will be compared to the permitted emission rate limits to track emissions to the "bubble limit".

## 2.6 Surface Coating

This category includes painting operations conducted in spray booths, outside the hangar doors, and static displays. Four surface coating operations are permitted at MHAFB: aircraft paint booth (Building 1330), aircraft parts paint booth (Building 1330), flightline open-area spraying, and the transportation paint booth (Building 1100). Surface coating was classified according to the following categories:

- Primers: coatings that are designed for application to a surface to provide a firm bond between the substrate and subsequent coating.
- Polyurethane coatings: topcoats that are commonly used due to their high resistance to corrosion. Polyurethane coatings contain a resin (base) component and catalyst (hardener) component that are mixed together—normally three parts of resin to one part of catalyst.
- Enamels: topcoats that are characterized by their ability to form a smooth surface.

- Lacquers: coating with composition based on synthetic thermoplastic film—forming materials dissolved in organic solvent.
- Thinners: volatile liquids added to a coating to reduce its viscosity.

### **2.6.1 Aircraft Paint Booth**

Two spray paint booths are located in Building 1330. The items to be painted are first cleaned with solvents, then painted using high volume low pressure (HVLP) paint spray guns.

The larger of the two permitted spray booths is called the aircraft paint booth. This paint booth is large enough to contain a fighter aircraft for surface preparation and/or full or partial paint coats. The aircraft paint booth has a daily throughput limit of 684 gallons per day (gal/day) or 1,250 gallons per any consecutive 12-month period. The aircraft paint booth contains fiber filters for controlling particulates (97 percent efficiency) and activated carbon filters for controlling VOCs (90 percent efficiency).

### **2.6.2 Aircraft Parts Paint Booth**

The aircraft parts paint booth is the smaller of the two permitted spray booths located in Building 1330. This paint booth is used for spray coatings of various aircraft parts. The aircraft parts paint booth has a daily throughput limit of 140 gal/day or 350 gallons per any consecutive 12-month period. The aircraft parts paint booth contains fiber filters for controlling particulates (97 percent efficiency).

### **2.6.3 Flightline Open-Area Spraying**

These operations include small spray or touch-up paint applications on the flightline, outside hanger doors, and on aircraft static displays. Throughput limits are 16.1 gal/day or 300 gallons per any consecutive 12-month period. In addition, VOC emissions are limited to 1.5 tpy.

### **2.6.4 Transportation Paint Booth**

Building 1100 contains a vehicle spray paint booth used to spray coat Base vehicles and parts as required. HVLP spray paint guns are required for bulk-paint applications. The transportation paint booth has an annual throughput limit of 300 gallons per any consecutive 12-month period. In addition, VOC emissions are limited to 4.0 tpy.

## **2.7 Fugitive Sources**

Fugitive emissions at MHAFB that are not considered insignificant activities come from two primary operations, landfill operations (bulldozing and grading) and vehicular traffic over paved roads and unpaved roads.

### **2.7.1 Landfill Operations**

The active MHAFB municipal solid waste landfill (MSWLF) occupies approximately 105 acres in the southwest corner of the Base. This landfill has been in operation by MHAFB since 1969. It is estimated that the MSWLF will be active until the year 2016, and the post-



closure care periods will be 30 years (until the year 2046). The Base MSWLF is not open to the general public. It currently serves a military population of approximately 5,200 residents. The Base MSWLF received an estimated 2,718 MG/yr of waste in CY 2005 (2005 MHAFB Air Emissions Inventory; CH2M HILL, 2005).

The Operable Unit No. 1 Limited Field Investigation Record indicated hazardous materials have not been placed in the MSWLF. Currently, batteries, used oil, tires, bulk liquids, improperly prepared asbestos, and hazardous and PCB wastes are prohibited from disposal. Scavenging of landfill material also is prohibited. The MSWLF currently utilizes three trenches, one for wood and rubble, one for properly prepared asbestos, and one for municipal solid waste (MSW). Daily cover is at least 6 inches thick, with the exception of the wood rubble cell, which does not require daily cover. Native soils between the bottom of the cells and basalt bedrock are silty clays approximately 10 feet thick (J.J. Howard Engineering and Surveying, 1996).

The active MSWLF at MHAFB operates 9 hours per day, 5 days per week, 52 weeks per year for a total of 2,340 hours. Bulldozing of overburden material and grading represent the sources of fugitive dust.

The inactive B Street Landfill ceased receiving refuse in 1969 and was covered and re-vegetated in 1994. Any remaining volatile emissions emanating from this landfill are considered negligible. According to Base records, no construction/demolition material was deposited in the B Street Landfill in calendar year 2005.

### **2.7.2 Paved Roads**

Particulate emissions may occur whenever a vehicle travels over a paved surface such as a road or parking lot. Fugitive particulate emissions from paved roads are due to re-suspension of loose material (mainly soil and tire particles) on the road surface. Base roads are paved with exception of the landfill.

### **2.7.3 Unpaved Roads**

Particulate emissions may occur when a vehicle travels over an unpaved road. Surface particles are lifted and dropped from the rolling wheels. The road surface is exposed to strong air currents as the vehicle passes and suspends dust in the air. For purposes of this Tier I renewal application, the unpaved roads at the active landfill will be evaluated.